Harry Assayag

hassayag.dev ☑

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Education

University of Birmingham	*Sept 2019 – Sept 2020*
Robotics M.Sc - Distinction	

University of Birmingham	*Sept 2016 – July 2019*
Physics B.Sc (Hons) - 2:1	

Employment

Full-stack Developer　　　　　　　　　　　　　　　　　　　　　　　　　*Leeds, UK (Remote)*
Equans Digital　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Jan 2023 – Present*

- Full-stack **IoT**, **web**, and **mobile** development with **Node/React** in **Typescript** that facilitates the commissioning, monitoring and energy optimisation of building management systems
- Implemented type-sharing between backend API services and client code to speed up development and improve type safety
- Led the technical design and implementation of our new **serverless** cloud platform using **AWS CDK** to deploy the front- and back-end infrastructure

Software Engineer　　　　　　　　　　　　　　　　　　　　　　　　　　*Birmingham, UK*
Trakm8　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Jan 2022 – Jan 2023*

- Small **Agile** development team focused on our flagship product, which provides vehicle telematics, fleet management, and insurance solutions to over 250,000 vehicles
- Full-stack **Angular**/**Node** web development with a focus on maintaining the databases and **RESTful** API microservices
- Led the implementation of iOS and Android push notifications using **AWS SNS** and **Firebase Cloud Messaging**

Developer　　　　　　　　　　　　　　　　　　　　　　　　　　　　　*Birmingham, UK*
Reynolds and Reynolds　　　　　　　　　　　　　　　　　　　　　　　　*Sept 2020 – Jan 2022*

- Front-end **COBOL** development of a Windows application for use in automotive dealerships worldwide
- Writing internal technical designs and program change notices for users, ensuring the language is tailored to its audience

Skills

Languages: JavaScript, TypeScript, Python, HTML, CSS, C#, Bash, COBOL
Frameworks: React, Express, AWS CDK, PyTorch
Tools: AWS (EC2, RDS, Lambda, S3, SQS, SNS), Git, Postman, Docker, Linux, Xcode, Android Studio, Unity
Databases: PostgreSQL, SQLite, DynamoDB

Projects

Video Game Datascraper　　　　　　　　　　　　　　　*github.com/deadlock-wiki/deadbot* ☑

- Founded an open-source **Python** project that maintains the data for a community-run wiki by parsing raw game files into usable JSON data
- Developed an end-to-end deployment pipeline with **GitHub Actions** that decompiles the game's files, stores them in an **S3** bucket, and uploads the parsed data to the website using the MediaWiki API
- Handle onboarding of new contributors, incoming feature requests from the community, and fixes to keep up with the game's ongoing updates

Using Deep Learning to Imitate Sounds on a Synthesiser　　*github.com/hassayag/autosynthesis* ☑

- 3-month dissertation project which aimed to create artificial neural networks capable of replicating sounds on a synthesiser
- Utilised **PyTorch** to build a custom dataset and train multiple models, each with their own architecture and finely-tuned hyperparameters
- Used a validation dataset to numerically evaluate the efficacy of each model using loss and frequency-spectra graphs

Competitive Online Wordle　　　　　　　　　　　　　　*github.com/hassayag/WordleOnline* ☑

- Created a real-time online multiplayer version of the game "Wordle" with **Node/React** in **Typescript**
- Used **Socket.io** to setup game lobbies that supports up to 5 players to join via a link share
- Implemented a user session system, stored in an **RDS Postgres** instance, which allows users to continue their game if they disconnect